



# State of Utah

DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

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April 19, 2001

TO:

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*PBB*

THRU:

Paul B. Baker, Team Lead

FROM:

Wayne H. Western, Senior Reclamation Specialist *W H W*

RE:

Phase III Bond Release for Miller Canyon, PacifiCorp, Cottonwood / Wilberg Mine, C/015/019-BR99D-1

## SUMMARY:

On December 23, 1999, the Division received a bond release application for the Miller Canyon Portals located at the Cottonwood Mine. Additional information on reclamation in Miller Canyon is found in Appendix XXII. In August 2000 the Division began to process the request. The Division found several deficiencies with the backfilling plan and the maps. On February 20, 2001, the permittee submitted a revised bond release package. The Division found the information adequate.

## RECLAMATION PLAN

### APPROXIMATE ORIGINAL CONTOUR RESTORATION

Regulatory Reference: 30 CFR Sec. 784.15, 785.16, 817.102, 817.107, 817.133; R645-301-234, -301-270, -301-271, -301-412, -301-413, -301-512, -301-531, -301-533, -301-553, -301-536, -301-542, -301-731, -301-732, -301-733, -301-764.

### Analysis:

The permittee met the general requirements for restoring the site to the approximate original contours. The reclaimed topography blends into the surrounding topography. French drains allow any water that will drain from the mine to mimic natural seeps in the area. Photographs in Appendix XXII show the operational and reclaimed phases of the Miller Canyon site. The photographs show that the reclaimed site is similar in grade to the surrounding area.

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TECHNICAL MEMO

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**Findings:**

The requirements of this section of the regulations are considered adequate in regard to Phase I and Phase II bond release.

**BACKFILLING AND GRADING**

Regulatory Reference: 30 CFR Sec. 785.15, 817.102, 817.107; R645-301-234, -301-537, -301-552, -301-553, -302-230, -302-231, -302-232, -302-233.

**Analysis:**

The general engineering requirements for backfilling and grading are that the site is restored to the approximate original contours, eliminate all highwalls, spoil piles and depressions; achieve a postmining long term static safety factor of 1.3. While no detailed premining contour maps and cross section of the site exist, the photographs of the surrounding area and postmining contour maps and cross section support the claim that the breakouts were in a near vertical face. Therefore, the highwalls will be eliminated if the permittee seals and backfills the port face ups.

The portals were backfilled as shown on the drawing entitled *Cottonwood Mine Miller Canyon Breakouts Plan View & Cross Section*. The cross sections show that the reclaimed slopes have angles less than 2 H to 1 V. The permittee did not give the Division detailed slope stability analysis for the backfilled slopes. Instead they used empirical methods based on slope height, slope angle and stability of similar slopes. The Division reviewed the stability analysis and agreed with the finds.

From information in the Appendix XXII, the Division found that the site had been restored to the approximate original contours. See the AOC section for more details.

The area should not have had any spoil piles or large depressions since surface activities were limited to the construction of the breakouts. The photographs in Appendix XXII do not show any spoil piles or large depressions. In the December 23, 1999, submittal the permittee states that all non coal and coal waste was removed from the site.

All coal seams that were exposed by mining have been covered. If naturally occurring coal outcrops do exist they were not the result of coal mining and the Division will not require the permittee to coal the natural coal outcrops.

**Findings:**

The requirements of this section of the regulations are considered adequate in regard to Phase I and Phase II bond release.

**MINE OPENINGS**

Regulatory Reference: 30 CFR Sec. 817.13, 817.14, 817.15; R645-301-513, -301-529, -301-551, -301-631, -301-748, -301-765, -301-748.

**Analysis:**

The Miller Canyon portals were sealed according to a plan approved by MSHA and the Division. Seals were placed in the portals and then the entrances backfilled. Due to natural cliff failure the backfill did not extend to the seal. A cross section of the site showing how the portals were sealed is Appendix XXII. Because the portals are in a remote location, the Division is not concerned with the public or wildlife gaining access to the mine through the Miller Canyon portals even if the backfill does not extend to the seals.

**Findings:**

The requirements of this section of the regulations are considered adequate in regard to Phase I and Phase II bond release.

**ROAD SYSTEMS AND OTHER TRANSPORTATION FACILITIES**

Regulatory Reference: 30 CFR Sec. 701.5, 784.24, 817.150, 817.151; R645-100-200, -301-513, -301-521, -301-527, -301-534, -301-537, -301-732.

**Analysis:**

No roads are associated with the Miller Canyon portals.

**Findings:**

The requirements of this section of the regulations are considered adequate in regard to Phase I and Phase II bond release.

TECHNICAL MEMO

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## **MAPS, PLANS, AND CROSS SECTIONS OF RECLAMATION OPERATIONS**

Regulatory Reference: 30 CFR Sec. 784.23; R645-301-323, -301-512, -301-521, -301-542, -301-632, -301-731.

### **Analysis:**

#### **Bonded area map**

The permittee did not give the Division any bonded (disturbed area) maps for the Miller Canyon area. Due to the small size of the disturbed area detailed disturbed area maps boundary maps are not needed.

#### **Reclamation backfilling and grading maps**

The permittee did not give the Division any backfilling or grading maps in the bond release package. The permittee included a topographic map and cross sections of the reclaimed portals. The map and cross sections were certified by a professional engineer.

#### **Final surface configuration maps**

The permittee did include any final surface configuration (topographic) maps in the bond release package.

### **Findings:**

The requirements of this section of the regulations are considered adequate in regard to Phase I and Phase II bond release.

## **BONDING AND INSURANCE REQUIREMENTS**

Regulatory Reference: 30 CFR Sec. 800; R645-301-800, et seq.

### **Analysis:**

#### **Determination of bond amount**

The permittee does not seek any bond reduction for the Miller Canyon portals. Since no bond reduction is sought, the Division will not recalculate the bond at this time.

**Findings:**

The requirements of this section of the regulations are considered adequate in regard to Phase I and Phase II bond release.

**RECOMMENDATIONS:**

The Division should grant Phase I and Phase II bond release for the Miller Canyon site.